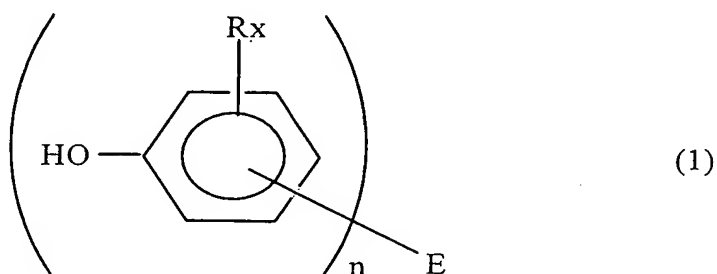


CLAIMS

1. A polytrimethylene terephthalate composition comprising a polymer component together with a combination of Component A and Component B, and/or Component C, from 10 to 100% by mole of said polymer component being polytrimethylene terephthalate composed of trimethylene terephthalate repeating units, wherein:

said Component A is a compound having a phenolic hydroxy group (a) represented by formula (1):



and/or a modified derivative thereof, wherein each R is independently selected from C₁₋₃₀ alkyl and at least one R is in the ortho position with respect to the phenolic hydroxy group; X is an integer of 1 to 4; E is C₅₋₅₀ hydrocarbyl or heterocarbyl; and n is an integer of 1 to 4;

said Component B is a compound having a secondary amine structure (b) represented by formula (2):



and/or a modified derivative thereof, wherein F and G may be a different or the same type of atom, but is not the same atom; and

said Component C is a compound having both of the group (a) and the group (b) in a molecule and/or a modified derivative thereof.

2. The composition according to claim 1, wherein the total amount of the secondary amine structure contained in Components B and C is from 0.001 to 1.0 milliequivalent per mole of trimethylene terephthalate repeating units and the combined content of Components B and C is from 0.001 to 0.2% by weight relative to the entire composition.

3. The composition according to claim 1 or 2, wherein each of the compounds of Components A, B and C is a stabilizer.

4. The composition according to claim 1 which is a polytrimethylene terephthalate composition comprising a polymer component and said Component C, wherein from 10 to 100% by mole of said polymer component is polytrimethylene terephthalate composed of trimethylene terephthalate repeating units.

5. The composition according to any one of

claims 1 to 3, wherein Component B is at least one selected from the group consisting of a reaction product of N-phenylbenzenamine with 2,4,4-trimethylpentene, 3-(N-salicyloyl)amino-1,2,4-triazole which is a heavy metal deactivator available from Asahi Denka Co., Ltd., decamethylene carboxylic acid disalicyloyl hydrazide and modified derivatives thereof.

6. The composition according to any one of claims 1 to 5, wherein Component C is at least one selected from the group consisting of N,N-hexane-1,6-diylbis[3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionamide], 2,6-di-tert-butyl-4-(4,6-bis(octylthio)-1,3,5-triazin-2-ylamino)phenol and modified derivatives thereof.

7. The composition according to any one of claims 1 to 6, further comprising a compound containing a sulfur atom and/or a modified derivative thereof, wherein said sulfur atom ranges from 0.001 to 1.0 millimole per mole of trimethylene terephthalate repeating units.

8. The composition according to claim 7, wherein the compound containing a sulfur atom comprises a compound having a thioether group and/or a modified derivative thereof.

9. The composition according to any one of claims 1 to 8, wherein from 10 to 80% by mole of the polymer component in the composition is composed of

trimethylene terephthalate repeating units.

10. The composition according to claim 9, wherein from 10 to 80% by mole of the polymer component in the composition is trimethylene terephthalate composed of trimethylene terephthalate repeating units, and from 90 to 20% by mole of the polymer component is composed of repeating units of at least one resin selected from the group consisting of a polyester, a polycarbonate and a polyolefin, other than polytrimethylene terephthalate.

11. The composition according to claim 9, wherein from 90 to 20% by mole of the composition is at least one polymer selected from the group consisting of polyethylene terephthalate, polybutylene terephthalate, polyethylene naphthalate, a polycarbonate and a copolymer thereof mainly comprising the same.

12. A process for producing the polytrimethylene terephthalate composition according to any one of claims 1 to 11, comprising adding a combination of Component A and Component B, and/or Component C, either directly or as a solution or a dispersion in a glycol mainly composed of trimethylene glycol, at any time point during the polymerization to the complete cooling of the product after the completion of the reaction.

13. A process for producing the polytrimethylene terephthalate composition according to any one of claims 1 to 11, comprising incorporating a combination of Component A and Component B, and/or Component C during the kneading of the polymer.

14. A fiber or a molded article comprising the polytrimethylene terephthalate composition according to any one of claims 1 to 11.